



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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September 27, 1994

Mr. Dexter Anderson
Red Dome Incorporated
SR Box 52
Fillmore, Utah 84631

Re: Review of Plan of Operations, Red Dome Volcanic Cinders, Red Dome Inc., M/027/032,
UT-055-91-01, Millard County, Utah

Dear Mr. Anderson:

The Division has completed its review of your latest response which was hand delivered to us during our last (April 28, 1994) joint-agency (DOGM/BLM) site inspection of the Red Dome mine. Your response was provided in reply to our August 31, 1993 technical review of your Large Mining Operation Notice of Intention. Please accept my apology for the unforeseen delay in responding to your reply. Permit review backlogs and an extensive field season have prevented a more timely response.

The Division has several comments/concerns which still need to be addressed before your permit application can be approved by our office. Our comments are listed below according to our rule numbers. In preparing your response to this document, please format it in a similar manner referencing the pertinent rule number and heading.

R647-4-105 Maps, Drawings & Photographs

105.1 Topographic base map, boundaries, pre-act disturbance

The issue of pre-act disturbance and disturbances which were not created by Red Dome was discussed during the joint site inspection of April 28, 1994. The BLM was going to look into obtaining an aerial photograph to help resolve the issue. No new information has been received to date regarding this matter. (AAG)

105.2 Surface facilities map

Please provide a map(s) which show the various reclamation treatments to be implemented once mining in an area is complete. This map would include areas where topsoil (plant growth medium) will be spread, compacted areas which will be ripped, pit highwalls which will be regraded (or remain), areas receiving a particular seedmix for soil, areas receiving a



alternate seedmix with no soil, roads which will not be reclaimed (eg., county and/or BLM roads), and roads which will be reclaimed. This reclamation treatments map should also show those areas where a variance is requested (unreclaimed highwall, lack of salvageable topsoil, areas unable to meet the 70% of premining cover revegetation standard, etc.). (LMK, AAG)

Acreage from the text of the response (11 acres for red, green and yellow areas combined) does not correlate with the acreage determined from the base map. Division measurements of the base map show a combined acreage of 17.7 acres (16.5 for the red, green and yellow areas and 1.2 acres for the access road, assuming an average road width of 20 feet). This discrepancy needs to be corrected. (LMK, TWJ)

The portion of access road shown in red on the base map was included by the Division as part of the disturbed area; however, during our site inspection you indicated this road was a county road. Please identify those roads shown on the base map which are county roads and those roads which have been created by your mining operations. (AAG)

R647-4-106 Operation Plan

106.5 Existing soil types, location, amount

Please provide a chemical and physical analysis of the soil materials stockpiled around the 'green' area. At a minimum, this analysis should include texture, organic matter, pH, SAR, EC, nitrogen, phosphorus and potassium. (LMK)

106.6 Plan for protecting & redepositing soils

A plan for protecting the soil material salvaged and stockpiled from the 'green' area needs to be provided. At a minimum, the material should be seeded (and bermed) to stabilize it against wind and water erosion, and identified with appropriate topsoil signs. (LMK)

R647-4-110 Reclamation Plan

110.1 Current & post mining land use

The Environmental Assessment prepared by the BLM identifies the current land use as mining and grazing. Page one of your response infers a post-mining land use of wildlife grazing. The reclamation plan needs to identify grazing/wildlife grazing as the post-mining land use. (LMK)

110.2 Roads, highwall, slopes, drainages, pits, etc. reclaimed

Please provide a written description for each of the reclamation treatments indicated on the Reclamation Treatments Map. For example, "The stockpile pads, processing area, roads within the permit boundary, and any other compacted areas will be ripped with a dozer to minimum depth of 12 inches before receiving the revegetation treatments appropriate for each area." (AAG)

110.5 Revegetation planting program

While a variance for meeting the 70% cover standard for the 'red' and 'yellow' areas may be appropriate, some vegetation can be established on these areas if they are ripped and seeded. On areas where soil material can be salvaged (e.g. the 'green' area), a variance from meeting the performance standard is not warranted. Please provide appropriate reclamation plans (revegetation) for these areas. The Division can provide assistance in developing appropriate seed mixes for this site if requested. Pending analysis of the soil material for the 'green' area (refer to comments under R647-4-106.5), fertilizer and/or other soil amendments may be required. (LMK)

R647-4-111 Reclamation Practices

111.1 Public safety & welfare

- 1.12 Disposal of trash & debris
- 1.14 Posting warning signs

The Division suggests the posting of warning signs on any roads which access the areas above the existing highwall along the western side of the red area. The access to these roads should also be blocked to prevent public access, provided this is acceptable to the BLM. If there is no road access to this area the signs and blockage are unnecessary. (AAG)

1.15 Constructing berms/fences above highwalls

The proposed mine plan calls for no mining of the existing highwall. The Division suggests the construction of berms/trenches which will prevent public access to the foot of the highwall. This would prevent or minimize the possibility of injuries or damages due to rock falls. Again, this measure should not be implemented unless acceptable to the BLM. (AAG)

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R647-4-112 Variance

As stated earlier, a variance from meeting the 70% cover standard for revegetation for the 'red' and 'yellow' areas may be appropriate, a variance from performing any reclamation (revegetation) is not warranted. As observed during our site inspection on April 28, 1994, some vegetation has naturally invaded previous mined areas. While the amount of vegetation was limited, it does show potential for establishing a stand of vegetation if the area was seeded. On areas where soil material can be (or has been) salvaged (e.g. the 'green' area), a variance from meeting the topsoil salvage and replacement performance standards is not warranted. (LMK)

R647-4-113 Surety

The discrepancy between the written description of disturbed acreage and acreage measured off the base map will need to be resolved in order to finalize the reclamation surety estimate. A revised draft of the estimate is attached for your review. This draft estimate is based on acreages measured by the Division on the base map. Please note the changes in acreages and a revised escalation factor in this revised draft. (AAG)

R647-4-116 Public Notice & Appeals

Once the Division has determined that the application is complete and technically adequate, we will prepare a Notice of Tentative Approval. This notice will be published in the appropriate local and Salt Lake area newspapers, therein opening a 30-day public comment period on the tentative decision. The tentative decision will become final following the successful expiration of the public comment period, and once the reclamation surety is received and approved by the Board of Oil, Gas and Mining.

Please contact me or Travis Jones of my staff should you have additional questions or concerns in responding to these remaining permitting requirements.

Sincerely,



D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
Attachment
cc: Rody Cox, BLM, Warm Springs RA
M027032.r2

RECLAMATION ESTIMATE

DRAFT

Red Dome Incorporated
Red Dome Volcanic Cinders
M/027/032

last revision 6/16/94
filename M27-32B.WB1
Millard County

Prepared by Utah State Division of Oil, Gas & Mining

Details of Final Reclamation

- All structures & equipment to be removed from the mine site
- All stockpile pads, crusher pads & facility areas to be ripped with a dozer
- All trash, debris, tires, etc., removed from site
- All post-law highwalls regraded to 3h:1v at final reclamation
- All post-law pits to be backfilled and graded
- All post-law roads to be graded & ripped
- Existing highwall (not being mined) to be left as is, ~70+ degrees (VARIANCE)
- Topsoil salvaged in GREEN area used in reclamation of that area
- Processing and facilities in the RED area (5.51 acres)
- Mining in the YELLOW area (5.11 acres) & the GREEN area (5.86 acres)
- Portion of the access road to be reclaimed (1.2 acres)-PORTION SHADED IN RED
- NOTE- ACREAGES LISTED BELOW ARE BASED ON THE MAP RECEIVED 4/28/94
- Estimated total disturbed acreage = 17.7

Activity	Amount	\$/unit	\$
Rip facility areas(0.6mph, 70% of RED)	3.857 acre	388	1,497
Rip roads(0.5mph)	1.2 acre	463	556
Regrade/backfill pits (60% of YELLOW+GREEN, 1.5f	7.679 acre	774	5,944
Regrading within facility area(50% of total area, 1ft de	2.755 acre	516	1,422
Remove trash & debris	17.7 acre	150	2,655
Mulch & fertilize	? acre	130	0
Broadcast seed	17.7 acre	120	2,124
Removal of power lines(ASSUMED)	2,000 LF	1	2,000
Mobilization	2 equip	1,000	2,000
	Subtotal		18,196
Add 10% contingency			1,820
	1994-\$ Subtotal		20,016
Add 5 yr escalation at 2.01%			2,094
	Total 1999-\$		22,110

Rounded Total in 1999-\$

\$22,100

Average cost per acre =

\$1,249